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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,996	02/06/2004	Deng-Min Yang	51921/DBP/S295	8424

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EXAMINER

RAO, G NAGESH

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/773,996	<b>Applicant(s)</b> YANG, DENG-MIN	
	<b>Examiner</b> G. Nagesh Rao	<b>Art Unit</b> 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                       |                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____                                                |

*re*

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 incorporates method limitations in their claim language, and it is suggested that applicant either re-write or insert the term “capable” so that the claim is read as an apparatus capable of performing such function but is not actively performing such a function.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5, 6, 7, and 9 rejected under 35 U.S.C. 102(b) as being anticipated by Yaita (US Patent No. 4,758,394).

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Yaita 394 teaches a method and apparatus for molding materials such as expanded resin, an apparatus capable of molding materials such as foam.

The language pertaining to the cross-linking and foaming of material, is read as an active process occurring to the material when worked upon in the claimed device and bears no weight on the structural limitations of the apparatus, since it is interpreted as a recitation of intended use.

Yaita 394 depicts in Figure 1 a pressure chamber (1) with a first molding unit comprised of an upper mold part (2) with a cavity inside (20) and a lower mold part (21) which corresponds with the upper mold part all.

Next to the first molding unit in Figure 1 is a second molding unit comprised of an upper mold part (3) with a cavity inside (30) and a lower mold part (31) which corresponds with the upper mold part all within the same pressure chamber as the first molding unit.

Within the pressure chamber anticipating the likeness of an air compressor with the likes of a pressure regulator (12) for regulating the pressure in the chamber (reads on pressure adjusting device) that is capable of adjusting the pressure within the apparatus to meet conditions needed for the material to reach proper processing parameters. The device also includes control valve (11) for controlling the supply of compressed air into the pressure chamber and a pressure

gauge (13) which anticipates a means for having a pressure sensor within the pressure chamber in order to measure and observing the inner pressure of the pressure chamber (Col 5 Lines 11-33).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yaita (US Patent No. 4,758,394) in view of Yamazaki (US Patent No. 5,800,759).

From the aforementioned Yaita 394 teaches a method and apparatus for molding materials. Although it teaches the conveying of materials from the first mold unit to the second mold unit, it lacks the specific teaching of a vertical rotating shaft with a suction cup to move the material from the first mold unit to the second mold unit.

In an apparatus for molding, Yamazaki 759 teaches a vertical rotating shaft with a suction cup as depicted in Figure 1 elements 30, 31, 32, and 33 (Col. 9 Lines 59-67 and Col. 10 Lines 1-5).

It would be obvious to one skilled in the art to modify the transportation means taught in Yaita 394 with that of Yamazaki 759 for more accuracy and quicker removal of the material from the first mold unit to the second mold unit.

4. Claims 2, 8, and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Yaita (US Patent No. 4,758,394) in view of Kumazaki (5,017, 315)

From the aforementioned Yaita 394 teaches a method and apparatus for molding materials.

However Yaita 394 lacks the specific teaching of incorporating pressure and temperature sensor elements within the molding units.

In an apparatus for molding, Kumazaki 315 teaches a method and apparatus for injection molding, whereby shown in figure 1 is a pressure sensor (16) and temperature sensor (18) both used to help determine the quality of the molded product within the confines of the mold (Col 1 Lines 34-44).


Therefore it would be obvious to one skilled in the art of molding to incorporate such sensors within a molding unit like Yaita 394, in order to ensure proper processing and quality of the material molded which in return would reduce or possibility eliminate loss of material becoming cost-effective.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to G. Nagesh Rao whose telephone number is (571) 272-2946. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Utech can be reached on (571) 272-1137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GNR

  
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